

REMARKS

Reconsideration of the above-identified patent application (as amended herein), is respectfully requested.

Claim 6-17 are pending in the application. Claims 6 and 14 are amended herein. Claims 6 and 14 are the only independent claims in the application.

In the Office Action dated November 19, 2003, the Examiner objected to claims 6-13 as the preamble does not coincide with the scope of the claims. The Examiner required appropriate correction of the claims to overcome this objection. The Examiner did not specify in what respect the preamble did not coincide with the scope of the claims. Nonetheless, by means of the present Amendment, claim 6 has been amended to include the limitation "thereby producing said aluminum composite material" at the end of the claim. It is believed that this limitation overcomes the objection of the Examiner. However, if it does not, the Examiner is respectfully requested to specify in what respect the preamble of claims 6-13 does not coincide with the scope of the claims.

In the Office Action dated November 19, 2003, the Examiner rejected claims 14 and 16 under 35 U.S.C. 102(b) as being anticipated by US 1,701,889 (Junker, hereinafter US '889). In this regard, the Examiner stated that the recitation "the cladding sheet for use . . . several roll passes" has not been given patentable weight because this recitation occurs in the preamble. The Examiner further stated that US '889 discloses cutting a cladding sheet from a first ingot which sheet appears to have a thickness from two mm to 100 mm.

Applicant respectfully traverses this ground for rejection. By means of the present amendment, claim 14 has been considerably amended so as to overcome this ground for rejection. Specifically, claim 14 now recites a method for producing an aluminum cladding sheet. US '889 does not disclose a cladding sheet, and certainly not one made from aluminum.

In addition, the body of claim 14 has been amended so as to refer back to features recited in the preamble of claim 14. For example, the body of claim 14 now recites "said aluminum cladding sheet," "said first aluminum ingot," and "suitable for use as a cladding sheet for said aluminum composite material." Therefore, the body of claim 14 now depends on the preamble for completeness.

Finally, although the Examiner asserted that the sheet in US '889 appears to have a thickness from 2 mm to 100 mm, there is no support for this thickness range in US '889. The Examiner has simply taken a limitation which appears in the present application and has assumed that it is also present in US '889 without any basis for this assumption.

Accordingly, withdrawal of the rejection of claims 14 and 16 under 35 USC 102(b) as being anticipated by US '889 is respectfully requested.

In the Office Action dated November 19, 2003, the Examiner also rejected claim 6, 11-14, and 16-17 under 35 USC 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of US '889. The Examiner further rejected claim 6-17 under 35 USC 103(a) as being unpatentable over AAPA in view of US 3,714,707

(Reizman et al, hereinafter US '706). According to the Examiner, AAPA discloses all of the claimed subject matter except for cutting at least one cladding sheet from a first ingot, the cladding sheet having a thickness of 2 mm to 100 mm [sic]. However, the Examiner asserted that both US '889 and US '706 disclose cutting a cladding sheet from a first ingot, the cladding sheet having a thickness of 2 mm to 100 mm, while US '706 further discloses that the cutting comprises sawing. According to the Examiner, it would have been obvious to one of ordinary skill in the art to cut the at least one cladding sheet of AAPA from a first ingot such that the cladding sheet has a thickness of 2 mm to 100 mm in light of the teachings of US '889 or US '706.

Applicant respectfully traverses these grounds for rejection. For the reasons set forth below, it is believed that applicant's invention, as claimed herein, is not rendered unpatentable by the combination of any of the prior art of record.

In particular, the AAPA, discussed in the background section of the present application, discloses that heretofore a cladding sheet was produced from an aluminum ingot by rolling down the ingot to the desired thickness on a hot roll. See para. [0005] of the application. However, the basic idea of the present invention is to produce an aluminum cladding sheet by a novel method, i.e., by cutting the cladding sheet from a first ingot made from a first aluminum material, thereafter placing this aluminum cladding sheet on a side of a second ingot made from a second aluminum materials, and then rolling the cladding sheet and the second ingot in several roll passes, thereby producing an aluminum composite material. In other words, the basic idea of the

invention is that an aluminum cladding sheet is produced by cutting from an aluminum ingot, preferably by sawing. This aluminum cladding sheet is not merely a metal strip, but must be produced from an ingot made of aluminum material and must have properties suitable for its use as a cladding sheet in an aluminum composite material.

It is submitted that neither US '889 nor US '706 discloses producing an aluminum cladding sheet suitable for use in making an aluminum composite material. Moreover, without the benefit of hindsight, a person of ordinary skill in the art would not have adapted the teachings of either US '889 nor US '706 to the task of producing an aluminum cladding sheet.

Thus, US '889 discloses a method for making metal sheets or strips from a cast ingot. A person skilled in the art knows that different metal materials all have different characteristics, especially in terms of machineability and workability. Some metal materials are particularly suited for being worked by planing or by sawing, whereas other metal materials are unsuitable for such type of working. According to the disclosure of US '889, the methods taught therein are suitable for the manufacture of sheets and strips made of copper containing metals, preferably alloys mainly consisting of copper and zinc, such as brass. However, there is no teaching or suggestion that the methods taught in '889 can be used for making a sheet made of aluminum, and certainly not a cladding sheet made from aluminum.

Similarly, US '706 does not disclose a method for making an aluminum cladding sheet by cutting from an aluminum ingot. US '706 discloses a sawing method for cutting

a stack of dielectric materials, preferably made from glass, into sheets. See the Abstract and col. 4, lines 22-25, of US '706. Thus, neither US '889 nor US '706 discloses cutting a cladding sheet from a first ingot made from a first aluminum material, as required by both claims 6 and 14. Furthermore, neither of these references discloses that the sheets made therein can be applied as a cladding to a second ingot made from a second aluminum material which is then rolled in order to produce an aluminum composite material.

It should be noted that a cladding sheet is a very specific kind of sheet and not merely any thin metal strip. A cladding sheet has to show very specific characteristics. For example, the cladding sheet has to be very thin and has to show optimal plane-parallel surfaces. Furthermore, the cladding sheet has to show surface properties which allow optimal cladding of the sheet with the aluminum core ingot. Thus, claims 6 and 14 specify that the sheet must be cut at a specified thickness and must be suitable for use as a cladding sheet. Heretofore, the only known method for producing an aluminum cladding sheet is by rolling an aluminum ingot down to a desired thickness on a hot roll, and thereafter applying this cladding sheet to a second aluminum ingot which is then rolled through several passes. However, neither US '889 nor US '706 suggests in any way that the methods taught therein can be adapted for the production of an aluminum cladding sheet. It is only with the benefit of hindsight that such a combination would be made.

It must further be remarked that US '889 is more than 80 years old. Nonetheless, prior to applicant's invention, persons skilled in the art never adapted the methodology

Serial No.: 10/019,706

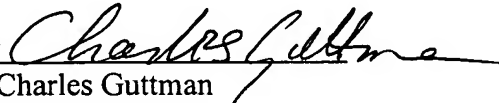
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taught therein for the production of an aluminum cladding sheet. This is strong secondary evidence of the patentability of applicant's invention, as set forth in claims 6 and 14.

In view of the foregoing, it is believed that the present application is now in condition for allowance and a favorable action on the merits is respectfully requested.

Respectfully submitted,

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Date: 4/22/04

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